



**(43) International Publication Date**  
**15 January 2004 (15.01.2004)**

**PCT**

**(10) International Publication Number**  
**WO 2004/006002 A2**

- (51) International Patent Classification<sup>7</sup>: **G02F**
- (21) International Application Number: **PCT/KR2003/001303**
- (22) International Filing Date: **3 July 2003 (03.07.2003)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:  
**10-2002-38743** **4 July 2002 (04.07.2002)** **KR**
- (71) Applicant (*for all designated States except US*): **SAM-SUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Paldal-gu, Suwon-si, Gyeonggi-do 442-742 (KR).

- (81) **Designated States (national):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

- (84) Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

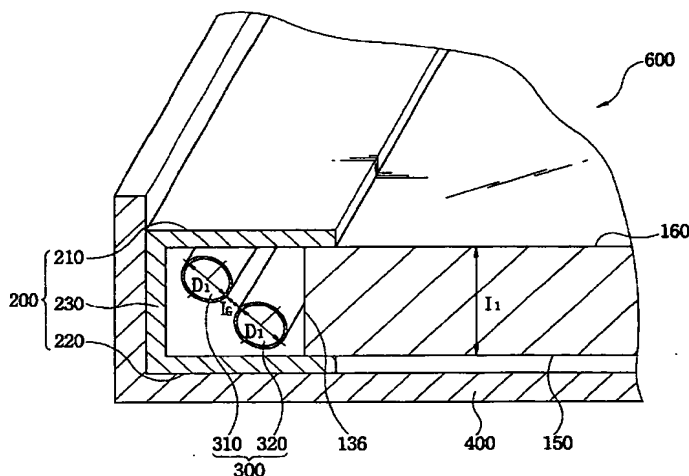
- (72) **Inventor; and**  
 (75) **Inventor/Applicant (for US only): LEE, Hea-Chun**  
 [KR/KR]; 101-102 Samsung Apt., Uman-dong, Paldal-gu,  
 Suwon-si, Gyeonggi-do 442-190 (KR).  
 (74) **Agent: PARK, Young-Woo; 5F., Seil Building, #727-13,**  
**Yoksam-dong, Gangnam-gu, Seoul 135-921 (KR).**

**Published:**

— *without international search report and to be republished upon receipt of that report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

- (54) Title:** BACK LIGHT ASSEMBLY AND LIQUID CRYSTAL DISPLAY DEVICE HAVING THE SAME



- (57) Abstract:** A backlight assembly of the present invention includes a light guide plate (LGP), a light reflecting member, two lamps. The LGP includes a light incidence face, a light reflecting face and a light exiting face. The light reflecting face reflects a first light toward the light exiting face to transform the first light into a second light. The second light exits from the light exiting face. A width of the light incidence face is a first distance. The light reflecting member covers the light incidence face so as to form a receiving space. The two lamps are disposed in the receiving space. The two lamps are spaced apart from each other by a second distance. A sum of diameters of the two lamps and the second distance is longer than the first distance. According to the present invention, a weight, a volume and a thickness of the LGP is reduced.